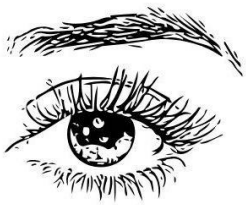
Put the sight aside:
from the supremacy of visuality to holism of the senses in the experience of art



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Abstract

The aim of my research is to investigate possible ways to implement inclusivity in art museums and art galleries for a visually impaired and blind audience. The research was conducted combining theory and site visits between Italy and Finland. The first part of the thesis provides an analysis of the phenomenon of "ocularcentrism" which is a societal circumstance historically rooted at a deep level. Ocularcentric behavior produces forms of passive exclusion that many of us are unaware of. Historical, philosophical and artistic examples are provided to confirm the importance of overcoming the ocularcentric tendencies of our societies in favor of a diversified usage of our senses as a holistic system, or what might be called a sensorium. This is especially the case when it comes to our experience of art.The second part of this research, provides a general overview of the most common sight diseases in order to explain how the world looks like to the visually impaired and blind. The third part of the research investigates what already exists in terms of attempts at sensorial inclusivity in museums and art galleries. We go through a detailed description of inclusivity tools such as tactile diagrams, verbal and audio descriptions, and consider how they function. In addition to the most common tools, the thesis looks at new technologies such as 3D printing and virtual reality and the possibilities they open up in terms of widening sensorial engagement for the visually impaired. The final chapter presents an experimental workshop developed in collaboration with collogues at Aalto University in 2019 at the EMMA museum in Espoo. As a learning experience the workshop resulted in some positive and some negatives aspects that indicate some considerations for future improvements with the field of sensorially inclusive exhibiting.

Keywords inclusivity, senses, art exploration

“Thus, art is not an object, it is an experience”

- Joseph Albers

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INTRODUCTION

"Seeing remains an insistent metaphor for all cognition only because while the ocular lobes are merely one of our brain's tentacular connections to reality.
They are among the most conscious of their capacity for information control."[1]

"Put the sight aside. From supremacy of visuality to holism of senses in art exploration" is the result of research started from personal experience.

My mother is visually impaired and I have always thought how different the impression of the surrounding world must be if the first perception channel is different from sight.

The development of the following research is focused especially on the comprehension of art, excluding, (or setting aside) what is for the major of people, the primary communication vehicle, the sight.

In the first part of the research the so-called phenomenon of *ocularcentrism* is investigated.

This *ocularcentrism* concept was the starting, while also the turning point of the research questions; despite being a sighted person, it is possible to realize how much our society is based on visuality and visual images.

Approaching the world from the point of view of 'the visually inclined' has, as a result, a passive exclusion for what instead should be inclusivity.

[1] C.A. Jones. *Sensorium. Embodied experience, technology and contemporary art*. MIT press, Oxford, 2006, p. 2.

This research is intended as an investigation into the relationship between art and the public without using sights as a primary channel of exploration but instead proposing a sensorial education to get involved with art in a different, innovative and deeper way.

A crucial point was to understand how a visually impaired or a blind person experience the world and more specifically, in this case study, the arts.

Part of this research I was active in the field; getting in touch with experts was a fundamental way to get started. Site visits included the Institute of Blind People, Milano and IRIS Culture Center for All in the city of Helsinki

After defining *ocularcentrism,* the interaction between art and visually impaired and blind audiences, is taken under closer observation proposing a picture of how a different approach, that considers our system of sense as a whole, can be adopted for art exploration~~,~~ - with particular emphasis on the sense on touch.

The sense of touch and its potentialities have been discussed and studied in different field, such as within philosophy and art, for many decades~~;~~ (a historical and philosophical background of this concept is provided.)

Starting from the epoch of ancient Greeks, with the myth of Pygmalion; throughout the philosophical thinking of Nietzsche, Harder and Kant; the potentiality of touch, of knowing the surroundings not only through eyes but also using our hands is investigated.

The capability of touch was also taken under examination in the art field. Art and design movements such as Futuristic trend in Italy or Bauhaus school in Germany considered touch as basic a tool for the production of art and for the encounter with it.

The new approach consequently created a new idea of aesthetic experience.

The aesthetic experience and aesthetic pleasure are intended as the possibility of associating, understanding and interpreting a specific image, both visual and non-visual. This image is usually

linked to personal experiences and memories and this connection generates in us emotions and feelings.

The aesthetic experience is similar to an explosion of intellectual energies that is turned on by our sensorial perception.

In this exact way an encounter with an art piece, that could be visual or tactile, can generate an aesthetic pleasure both in a normal sighted and in a visually impaired or blind person; different in the procedure but similar in the intellectual process that drives to the final result.

In the context of contemporary art, the aesthetic pleasure and how the cooperation of our senses could change the perception of art became even more broad.

In this research performance art and Sensorium Exhibition at MIT in 2006 are taken under observation as demonstratives example.

The last part of the research provides a picture of what is currently active in terms of inclusivity and art accessibility in museums and art galleries, auxiliary tools and activities such as the workshop conducted in (EMMA), the Espoo Museum of Modern Art, and in which new possibilities could be reached investing in the integration of new technologies.

CHAPTER I

1. THE PHENOMENON OF *OCULARCENTRISM*: ON THE SUPREMACY OF VISUALITY

What could be explained to a person who is blind about a work of *visual* art?

As Martin Jay observes in his book entitled *Downcast Eye*[2], the design of art and artifacts, that we indeed call visual, assumes that society and the arts are preliminary built on visual knowledge.

This is an assumption that has excluded visually impaired and blind people from social and cultural activities and has stable roots since the birth of human visual knowledge.

Jay terms this exclusionary idea *ocularcentrism.*[3]

Consequently, ocularcentrism has become a self-fulfilling propensity in and of itself. People design society that is visibly aesthetic, people appreciate aesthetics visually and due to these settings, visual reproduction and evolution develop cultural traditions. In turn this reproduction is taken as a guarantee and becomes the social and cultural norm. This cultural norm assumes that people experiencing visual art preliminary or only understand the visual artifact through a single sense of our five, - our sight.

As a result of this vicious circle there is also the belief that visual artworks and artifacts can only be understood and appreciated through visual perception alone.

Describing this situation, we are talking about *passive exclusion*.[4]

It should be kept in mind that artists create work and art crafts, at least as first step, with visual perception, in their mind.

This is indisputable.

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[2] S. Hayhoe, *Blind visitor experiences at art museum*, Rowman & Littlefield, Lanham, Maryland, 2017, p.4.

[3] S. Hayhoe, *Blind visitor experiences at art museum*, Rowman & Littlefield, Lanham, Maryland, 2017, p.4.

[4] S. Hayhoe, *Blind visitor experiences at art museum*, Rowman & Littlefield, Lanham, Maryland, 2017, p.4.

However, it is possible to turnover passive exclusion, considering that once the artwork is exposed it becomes part of public domain; from this point of view the artworks now belongs to the audience. They decide how to engage with the work, in whatever way they feel comfortable.

Considering this concept, redefining the fundamental nature of visual art could change the nature of visual artworks.

The artworks can become a linguistic piece that can be described, a tactile piece that can be touched, a multisensorial piece that can be experienced with all sense and with more than one channel.

The discussion about this phenomenon of ocularcentrism has been brought to the table before, especially in philosophy, strictly which strictly links it to the aesthetic experience.

The first philosopher that asked himself what could the universe of experience of a blind person consists of, and in which ways can a visual impaired experience the reality, was Diderot in his "*Letter on the blind"*.

Diderot argued that a blind or a visually impaired person has an aesthetic experience more intense than a sight person, and in addition to this; he affirmed that the sense of touch, more than sight, brings us in direct contact with the essence of reality, and also, that of the artistic universe.

It is exactly this kind of research question, still now, that ousts the primary role of the sight.

Later other philosophers tried find an answer for this question.

The most fascinated one on this issue was Friedrich Nietzsche.

Nietzsche was profoundly against ocularcentrism of wester metaphysic and the predominant belief of transparency and neutrality of the sight.

Nietzsche indeed was a member of philosophical movement that supported the idea that

all the senses have a value.

This movement is called *Sensism*.[5]

Sensism ousted the supremacy of the sight, giving more value to the intimate senses like, smell, touch, and taste, both independently and in a synesthetic relationship.

In this way the internal sensation of the body the principle position takes the first place, not materialistic body in an anatomist conception, but in the sense that an experience through the body has happened.

In this way, the focus on the internal sensation of the body goes in the same direction as the overthrowing of the sight.

Husserl follows the intuition of Nietzsche; in his *Ideas II* he constructs a phenomenology of touch.[6]

He affirms that in the act of touching we have two objects; both objects construct themselves in a tactile way; Husserl calls this process *double apprehension*. [7]

This double apprehension consists of the experience of touch, learnt as a peculiarity of the external object but also as peculiarity of the proper object, that of our body.

This exchange of sensation and experience between the object and ourselves does not happen when we experience the world and the arts only with eyes and sight.

Only touch, says Husserl, has the privilege of the double apprehension.

Of the five senses, touch is the only one that has the privilege of always giving back, an exchange of sensation with the body that experiences the world, or, in my research case, an art piece.

For Husserl only in connection with touch can all the other senses participate in the

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[5] H. Parret, L'occhio che accarezza: Pigmalione e l'esperienza estetica, traduzione a cura di Antonio Valentini, Bruxelles, 2006-2007, p. 4.

[6] S. Hayhoe, *Blind visitor experiences at art museum*, Rowman & Littlefield, Lanham, Maryland, 2017, p.4.

[7] S. Hayhoe, *Blind visitor experiences at art museum*, Rowman & Littlefield, Lanham, Maryland, 2017, p.4.

experience of introspective sensations and have a transposition of them.

It is necessary to point out that Husserl took inspiration from Immanuel Kant.

In *Pragmatic anthropology* Kant underlines the importance of the sense of touch despite the sense of sight.

He says: "This sense is also the only one that contributes to external immediate perception and for this reason it is also the most important and the one that teaches us the most important experience, despite being the roughest" [8]

To explain how important the sense of touch was for the western philosophy at that time, it would be good to mention briefly the myth of Pygmalion.[9]

Pygmalion lived free, without a bride, and his bed remained empty for a long time. However, his happy chisel, led by a wonderful art, it gives shining ivory a shape that never woman received from nature, and the artist falls in love with his work.
Pygmalion is inebriated by a chimeric flame. More than once he reaches for his goddess; touching it.
Is perhaps a body, is it perhaps ivory? Ivory! No, he doesn't want to accept it.
He thinks he can kiss her; he talks to her, he touches her, he fills her with caresses, now offers her the gifts dear to young girls, shells, shining stones, birds, flowers of a thousand of colors.
It's not all, it is covered with precious fabrics. [...] He calls her the companion of his bed; he contemplates her lying on soft blanket, believes she can feel it.
Venus welcomes her prayers.
[Pygmalion] flies towards the object of his imaginary flame, bends over the bed, covers the statue with kisses.
Oh Gods! His lips are warm; again, he approaches the mouth.
With a trembling hand he questions the heart: the shaken ivory becomes more tender; it has lost its original hardness. She exists.
Finally, it is no longer on a cold mouth […].
The girl hears the kisses he offers her; she feels, since it turns red; his shy eyes open to the light, and the first thing she sees is the sky and his lover.

This piece of the myth of Pygmalion is explanatory allegory of how the sense of touch is something that animates and verifies the reality and make the users, or the audience, experience what is around us, also a work of art.

This is developed also in Herder's theory.

[8] H. Parret, L'occhio che accarezza: Pigmalione e l'esperienza estetica, traduzione a cura di Antonio Valentini, Bruxelles, 2006-2007, p. 5.
[9] S. Hayhoe, *Blind visitor experiences at art museum*, Rowman & Littlefield, Lanham, Maryland, 2017, p.7.

Agreeing with Herder, five senses are divided in a hierarchical system.

In the Herder hierarchical system, sight loses the supremacy.

The tactile dimension does not consist of the mere action of touching, but includes also the inner sense of bodies, the one that is touched and our body.

The philosopher calls this particular characteristic *physio-aesthetic*. [10]

The fact that~~,~~ the sense of touch has a primary role comes from an analysis conducted by Herder about Diderot's Letter on the blind.

Herder agrees with Diderot that a blind or visually impaired person has a more developed sensorial ability that starts from touch; this, to affirm that the haptic perception has a more important role than the optic one.

Accordingly with Herder theory, a person that takes part in an haptic experience has a more intense engagement.

As Herman Parret reported in his paper, for Harder this myth was an instrument to develop a phenomenology of the aesthetic experience of the work of art.

In general, touch is groundbreaking. It captures the most fundamental movement of thought.

As Jacques Derrida affirms, touching is what the knowing subject must do in order get to the bottom of things; this bottom of things cannot reveal itself, and as a result the revelation will not occur unless we touch things first.

No matter how elusive and intangible, all objects turn out to have something to do with haptic.

It is in thought touching, that we reach, as Derrida says, the limit, the bottom of thing.

Touching is the only instrument that makes us deeply know the object.[11]

[10] H. Parret, L'occhio che accarezza: Pigmalione e l'esperienza estetica, traduzione a cura di Antonio Valentini, Bruxelles, 2006-2007, p. 9.

[11] C.Moraru. *Touching proximity, remove and vision of things.*

1.1 WHY ART FOR THE VISUALLY IMPAIRED AND THE BLIND?

Many of us love and enjoy exercising, but some others not, many of us love gardening, for instance, but some other do not take any satisfaction from it.

Likewise this happens with art; many of us get great emotions and experiences emotional experiences from paintings, sculptures, photographs and images in general; from time spent making or observing pictures, going to galleries and museum, or from discovering history of art, but some others do not.

It is not possible to make everyone appreciate art, but it is possible to create opportunities to make art accessible, explorable by everyone who is capable and curious.

What is clear today is that we know that blind people and the visually impaired are able to appreciate art; in its different forms, and they are more and more often curious about it.

Some have a lust for shape, space and form, just as others are moved deeply by music or nature. And of course, some us, sighted or blind are capable of deep insight into many forms of expression and communication.

Despite the profound social, economic and technological occurred in the twenty-first century, much of the public cultural infrastructure is largely anchored in *"few for many"* mechanisms, and isolated in a context that is pushing towards a transition to a culture produced by *"many for many"*.

In the era of the post-industrial revolution, of which the internet is the emblem, the easy, quick, instant and often free access to information requires a profound process of rethinking the structure of museum.[12]

[12] https://www.artribune.com/arti-visive/2019/09/musei-inclusione-editoriale-fabio-viola/?fbclid=IwAR3qw4mui9L3k-ILOM9P1N5G0cJc5ryHvFR7VBPysdWp_SXUAXwQSZM1fT8

Museums and art galleries should become houses open to a plurality of languages and codes in which each social group, regardless of its cognitive and cultural sets, should be able to recognize itself and make its own contribution directly.[13]

Continuing along the current route, the museum takes a risk to become a place of exclusion rather than inclusion.

Overcoming the sacral idea of the artwork to be contemplated in respectful silence, a new historical phase begins at the point in which the idea of art derives from the equal relationship between object, visitor and place where they meet.

A good strategy to proceed with would be to think and create museum exhibition, activities and workshops that deal with different themes that not only take into consideration physical and existing boundaries in the space, but also conceptual boundaries.

The most important thing that needs to be kept in mind is the concept of inclusion and not exclusivity.

A good and effective inclusive museum should be designed not only for an audience with a specific disability by proposing different activities or guided tours with their explicit needs in mind. This would bring as a result, exclusivity and not inclusivity. But effective inclusive programs would need to be taught to a wider audience that takes into consideration every phase of life, in their mutable conditions, both possible and certain.

The overcoming of those boundaries will give as a result overall benefit; imagining, designing and communicating art museum, or more generally, art spaces thought to be more easily accessible and usable for a wide audience and not only specifically for disables.

This is a choice with common sense.

[13] https://www.artribune.com/arti-visive/2019/09/musei-inclusione-editoriale-fabio-viola/?fbclid=IwAR3qw4mui9L3k-ILOM9P1N5G0cJc5ryHvFR7VBPysdWp_SXUAXwQSZM1fT8

Exploring and being engaged with art through the sense of touch (and the other senses that are usually neglected) will greatly benefit the audience as whole, whether they live with disability or not, the possibility to become more conscious both of the space but also of themselves. Materials, objects and tools, that will describe in the following paragraphs need to be accessible in order to create a vision but without using sight.

1.2 TOWARDS A HOLISM OF THE SENSES IN CONTEMPORARY ART: SOME ALTERNATIVES FOR ENGAGEMENT

The previous chapter frames the relationship that runs between sight, sense of touch and artistic engagement.

The correlation that exists between touch and sight is such a difficult one, especially if linked to the theme of heterogeneity and irreconcilability, it seems that these two senses are speaking in two different languages.

However, it is possible to say that this type of heterogeneity is an indication of variety.[14]

This not only because touch underlines the *"sensuality"* of its values, not only because touch offers to the visitors a different way to engage with the art piece, but also because, when it is possible, art and sight can integrate with each other creating different possibility for art reading and interpretation.

As I said before, in our society here is a tendency to link the appreciation of the arts with a supremacy of sight, and from here the concept of *ocularcentrism* is created; so it is possible to assume that also the concept of beauty is put in strict correlation with the sense of sight.

But what if it could be possible to change the concept of beauty shifting the tool of art interpretation from sight to hand or body?

As Kant agrees, touch is the sense of truth, of making but also the sense of shapes. It is able to create a world suitable for humans without illusions based on humans' sensibility.

Sight instead, is a deceptive sense that can only read images.[15]

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[14] M. Mazzocut-Mis. *Voyeurismo tattile: un'estetica dei valori tattili e visivi.* Il Melagnolo, Genova, 2002, p.12.

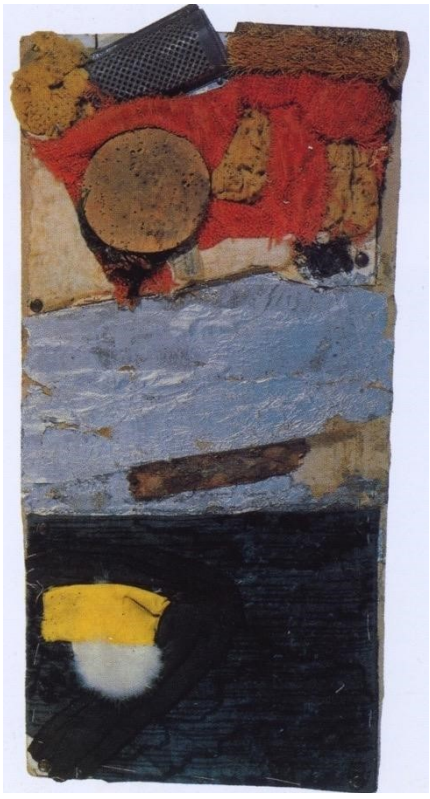
[15] M. Mazzocut-Mis. *Voyeurismo tattile: un'estetica dei valori tattili e visivi.* Il Melagnolo, Genova, 2002, p.13.

Images are a quick overview of the whole, the touch instead is a soft and slow passage on things, and, in a way, the only real comprehension channel through which we can really establish an engagement with art crafts and artworks.[16]

Taking into consideration what I said before, it is possible, if the importance of the sense of touch and engagement through body is increased, to create a crisis for the conventional and well known idea of the concept of beauty (that is always been put in relationship with the act of seeing). In this way a new definition of beauty is created.

This new concept, by consequence, is not only related to the visibility of space, shapes and harmony as artistic, bus is also related with the *haptic*[17] sphere as artistic.

Tactile and body experience of art can allow a visitor that is visually impaired, blind, or normal sighted to go over the dilemma between figurative and non-figurative, but also between mimesis and real expression.



This already happens.

Contemporary art, in fact, asks the spectator, blind or not, to change his behavior if in front of an artistic work, whichever is it. whatever it is

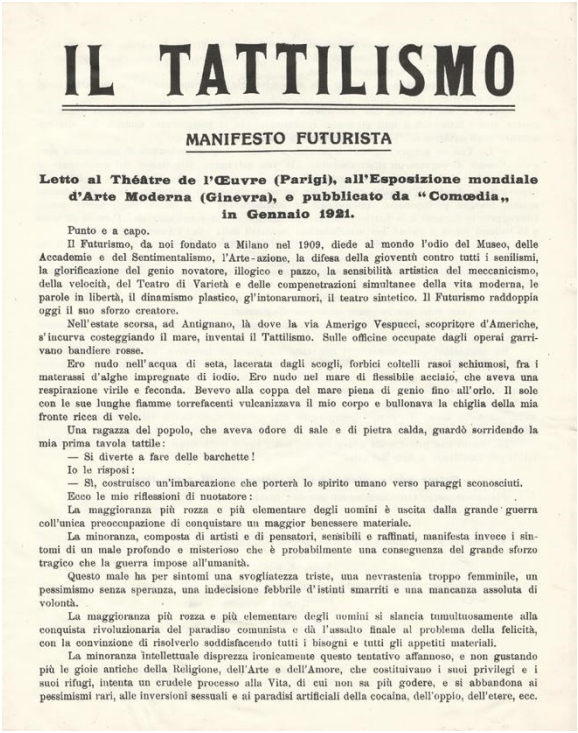
The fulfillment of a contemporary artwork/craft is participatory, engaging, also on a physiological level; this is exactly what happened with a more engaging exploration of art.

[16] M. Mazzocut-Mis. *Voyeurismo tattile: un'estetica dei valori tattili e visivi.* Il Melagnolo, Genova, 2002, p.13.

[17] The haptic word derives from the Greek apto which means touch: with this attribute we therefore mean something that has to do with touch.

It is possible to mention some pioneer's art movement that already took into consideration the idea of the sense of touch and body engagement as an innovative way to understand art.

The first art movement that, on the art scene, began its engagement with art in a new way was the Futurism Italian trend.



IL TATTILISMO

MANIFESTO FUTURISTA

Letto al Théâtre de l'Œuvre (Parigi), all'Esposizione mondiale d'Arte Moderna (Ginevra), e pubblicato da "Comœdia„ in Gennaio 1921.

Punto e a capo.

Il Futurismo, da noi fondato a Milano nel 1909, diede al mondo l'odio del Museo, delle Accademie e del Sentimentalismo, l'Arte-azione, la difesa della gioventù contro tutti i senilismi, la glorificazione del genio novatore, illogico e pazzo, la sensibilità artistica del meccanicismo, della velocità, del Teatro di Varietà e delle compenetrazioni simultanee della vita moderna, le parole in libertà, il dinamismo plastico, gl'intonarumori, il teatro sintetico. Il Futurismo raddoppia oggi il suo sforzo creatore.

Nell'estate scorsa, ad Antignano, là dove la via Amerigo Vespucci, scopritore d'Americhe, s'incurva costeggiando il mare, inventai il Tattilismo. Sulle officine occupate dagli operai garrivano bandiere rosse.

Ero nudo nell'acqua di seta, lacerata dagli scogli, forbici coltelli rasoi schiumosi, fra i materassi d'alghe impregnate di iodio. Ero nudo nel mare di flessibile acciaio, che aveva una respirazione virile e feconda. Bevevo alla coppa del mare piena di genio fino all'orlo. Il sole con le sue lunghe fiamme torrefacenti vulcanizzava il mio corpo e bullonava la chiglia della mia fronte ricca di vele.

Una ragazza del popolo, che aveva odore di sale e di pietra calda, guardò sorridendo la mia prima tavola tattile:

— Si diverte a fare delle barchette!

Io le risposi:

— Sì, costruisco un'imbarcazione che porterà lo spirito umano verso paraggi sconosciuti.

Ecco le mie riflessioni di nuotatore:

La maggioranza più rozza e più elementare degli uomini è uscita dalla grande guerra coll'unica preoccupazione di conquistare un maggior benessere materiale.

La minoranza, composta di artisti e di pensatori, sensibili e raffinati, manifesta invece i sintomi di un male profondo e misterioso che è probabilmente una conseguenza del grande sforzo tragico che la guerra impose all'umanità.

Questo male ha per sintomi una svogliatezza triste, una nevrastenia troppo femminile, un pessimismo senza speranza, una indecisione febbrile d'istinti smarriti e una mancanza assoluta di volontà.

La maggioranza più rozza e più elementare degli uomini si slancia tumultuosamente alla conquista rivoluzionaria del paradiso comunista e dà l'assalto finale al problema della felicità, con la convinzione di risolverlo soddisfacendo tutti i bisogni e tutti gli appetiti materiali.

La minoranza intellettuale disprezza ironicamente questo tentativo affannoso, e non gustando più le gioie antiche della Religione, dell'Arte e dell'Amore, che costituivano i suoi privilegi e i suoi rifugi, intenta un crudele processo alla Vita, di cui non sa più godere, e si abbandona ai pessimismi rari, alle inversioni sessuali e ai paradisi artificiali della cocaina, dell'oppio, dell'etere, ecc.

Agreeing with one of the main exponents of the movement, Umberto Boccioni, the classic format of painting and sculpture would no longer be enough.[18]

A new sensibility, a new synesthesia, contamination of other senses in the exploration of what is perceptible was being born at that time.

The major supporter of this thinking trend was Marinetti, who, during 1921 proposed a re-education of touch in a pedagogical Manner.

Tommaso Marinetti thought that, using the other senses, in particular the sense of touch, in order to have contacts with the outside world was directly linked to our cognitive process; He stated that this helped them to have better communication skills with other humans, especially by using epidermis.

So touch, as a medium.

Touch, said the artist, is a complex but global sense that is composed of different parts that give use the perception we have of the world.[19]

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[18] *Materiali, sensorialità, design. Esplorazione attraverso sentieri tattili*. Tesi di laurea. Pp. 9, parte II.

[19] *Materiali, sensorialità, design. Esplorazione attraverso sentieri tattili*. Tesi di laurea. Pp. 9, parte II.

Futurism was also the first art movement that promote the usage of tactile diagrams as a tool for art exploration.

Almost in the same period in Germany, in Weimer, the School of Bauhaus was founded. Precisely here, the discipline known today as basic design was born.

The beginner of the project was Johannes Itten. He showed a new interest for the sensorial relationship with reality, introducing sensorial education as part of the course.

This because, for Itten and the all the other member of the school, when a product is designed it needs to be kept in mind how sensorial perception of materials could be a way of expression; not only formal but also emotional; creating an engagement through touch and body with the designed object.

1.3 FROM PERFORMATIVITY OF SENSES TO THE SENSORIUM

The concept of corporeal approach to art is brought even further to the table by the performing art.[20]

Performance has the possibility to take the body out from the classical frame of paintings and sculptures, giving it back its carnal, painful and passionate existence.[21]

One of the first supporter of this idea of art and senses was Marina Abramovic. She transforms her body into a work of art, the body becomes a primary component of art. Figures above show the performance the performance titled *Rhythm 0*. The first episode of a series of the recurring performances that took place in Naples in Studio Morra in 1974. [22]

During a performance in which the dynamics of passive aggression are explored, Marina Abramovic stands near a table and offers herself passively to spectators who can do whatever they want to her body with a series of objects.

[20] M. Mazzocut-Mis. *Voyeurismo tattile: un'estetica dei valori tattili e visivi.* Il Melagnolo, Genova, 2002, p.192.
[21] M. Mazzocut-Mis. *Voyeurismo tattile: un'estetica dei valori tattili e visivi.* Il Melagnolo, Genova, 2002, p.192.
[22] M. Mazzocut-Mis. *Voyeurismo tattile: un'estetica dei valori tattili e visivi.* Il Melagnolo, Genova, 2002, p.193.

Her body was cut, painted,

cleaned, gilded, crowned with thorns

and underwent the pressure of a

loaded

gun.

The corporeality in art, the use of the body as a tool to create art and convey messages, reaches a more extreme level in the works of Gina Pane. [23]

In accordance with what she said about the works, in this way a joint participation with the audience is created.

"I think there is, for real, a repercussion that is produced on the body of the other. The pain element is received psychically and emotionally."[24]

Proceeding using the sense of touch and body as a tool helps us to overcome what is horrific, shocking.

José Saramago explain to us in his book titled "*Blindness"* how the sudden loss of sight in a world that is primarily made only for those who see, intensifies not only the use of the sense of touch but also the attention to our body in general; for Saramago, in a world that suddenly becomes blind everything is body.

So it is possible to say that in the landscape of contemporary and performance art, the body appears and experiences, but beyond there is representation in more than one form.

A step forward into the discovery of sensoriality through contemporary art ha been carried out with the exhibition Sensorium, at MIT, in the city of Boston in 2006 curated by Caroline A. Jones.

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[23] M. Mazzocut-Mis. *Voyeurismo tattile: un'estetica dei valori tattili e visivi.* Il Melagnolo, Genova, 2002, p.196.

[24] M. Mazzocut-Mis. *Voyeurismo tattile: un'estetica dei valori tattili e visivi.* Il Melagnolo, Genova, 2002, p. 196.

Generally speaking, A sensorium is the apparatus of an organism's perception considered as a whole, "the seat of sensation" where it experiences and interprets the environment within which it lives. The sensorium is a creation of the physical, biological, social and cultural environments of the individual organism and its relationships while being in the world.

These includes the sensation, perception and interpretation of information about the world around us by using facilities of the mind such as senses, phenomenal and psychological perception, cognition and intelligence.

The sensorium exhibition collected a number of art works that rethink the concept of subjectivity in relation to the surroundings, with the integration of our bodies with related technologies such as earphones, zooming in psychopharmaceuticals, extended prostheses; dazzled by odorless tastes and tasteless odors, transported by new media; that created an inevitable switch of the discourse.[25]

This interplay of various ways of conceiving the world could be compared to the experience of synesthesia, where stimulus of one sense causes a perception by another.

Sensorium is an investigation into a new concept of aesthetics and synesthesia that locate bodies in interaction with technologies that creates a new dichotomy.

A site of working out this dichotomy that interests virtual reality and corporeality is, certainly, what is called media-art.

In that sense, Sensorium explores how sensing bodies can now become technological to produce amplified, connected new sensoriality, investigating when touch specifically counteracts sight, creating the phenomenon of ocularcentrism.

Sensorium demands that the audience constantly question the stability and "natural" order of that arrangement and gives to them aesthetic motivation to do so.

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[25] C.A. Jones. *Sensorium. Embodied experience, technology and contemporary art*. MIT press, Oxford, 2006, p. 2.

The exhibition is a project that challenges society to switch from a story of the eye to a story of the senses. To active this change, indeed the artworld itself has to change. It has also to lose its taste for exclusively visual form and turn to the predominantly social category of experience, believing that the instrumentalization of senses could be defeated in favor of much more embodied experience.

Nevertheless, at the cutting edge of the twenty-first century in scientific research the body's own molecular tagging mechanism are used to delineate minute anatomical structure within the eye, and it emerges that the Cartesian ocular "mechanism" (that makes a clear distinction between sensations and the objects that cause); is protuberance of the brain, endowed with its own parallel processing system that is countered and stabilized by senses data from touching, hearing, taste or smell.

Only half the cerebral cortex deals with signals coming from our eyes.[26]

This might explain the durability of the eye's region, until one realizes that fifty percent is a much smaller percentage than the brain has given over to vision in most sighted vertebrates. In fact, humans take far less of their information about the world from vision than almost any other sighted organism.

It is evident that seeing remains an insistent metaphor for all cognition only because while the ocular lobes are merely one of our brain's tentacular connections to reality, they are among the most conscious of their capacity for information control.

Sensorium collected a series of art works that underlines how fundamental ~~is~~ the use of all senses are and more significantly their collaboration within the process of understanding the world. And consequently that the instrumental effects of modernity need to be smelled, seen and heard, in cooperation with all senses, dethroning the sight's privilege.

[26] C.A. Jones. *Sensorium. Embodied experience, technology and contemporary art*. MIT press, Oxford, 2006, p. 2.

One emblematic example of the base concept of Sensorium exhibition is the work *Fear I*, by Sissel Tolaas.

Tolaas' *Fear* series collects the unaltered bodily smells of 9 men, with whom the artist and scientist have worked with for more than five years, carefully sampling, chemically mimicking, and testing for accuracy.

In the space of exhibition, the wall is apportioned with vertical stripes of barely tinted paints that have been impregnated with each of their aromas in microencapsulated form. The installation functions somewhat like a blown-up scratch-n-sniff card as visitors move across the wall, releasing each odor through manual activation.[27]

In this full spectrum of balanced sensorial experience, our senses keep us grounded in the reality of the present, the reality of our own bodies in space and time, but when one sense comes to the front we shift to the intoxication of the imagination. Disentangled from the complexity of a multisensory equation, any single sense can transport us beyond ourselves - back into our memories, like Marcel Proust's beloved Madeleine; - but also into unfamiliar mental territories, be they our imagined futures or unknown worlds and experiences.

Sissel Tolaas' work isolates one of our senses so that we might imagine the rest.

For Tolaas, the work is about how "information goes through your nose instead of your eyes" which opens unique possibilities of perception, emotion, and imagination.

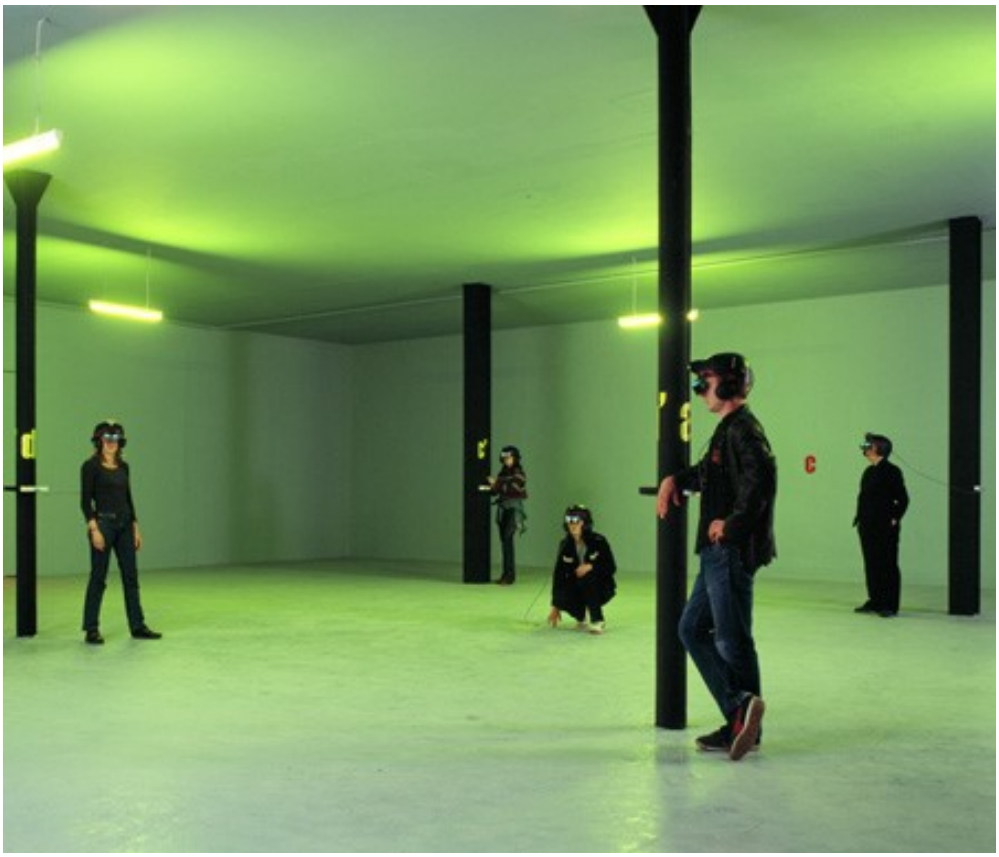
Nowadays contemporary art is becoming more participatory and the participation needs to be explorative not only through sight but also with all the senses.

Besides, the etymology of the Latin word *sensu-us* has as primary signification of the capacity of perceiving the world through senses, but also the capacity for understanding and feeling (a general object or a work of art).

[27] https://www.grandarts.com/past_projects/2007/2007_01.html

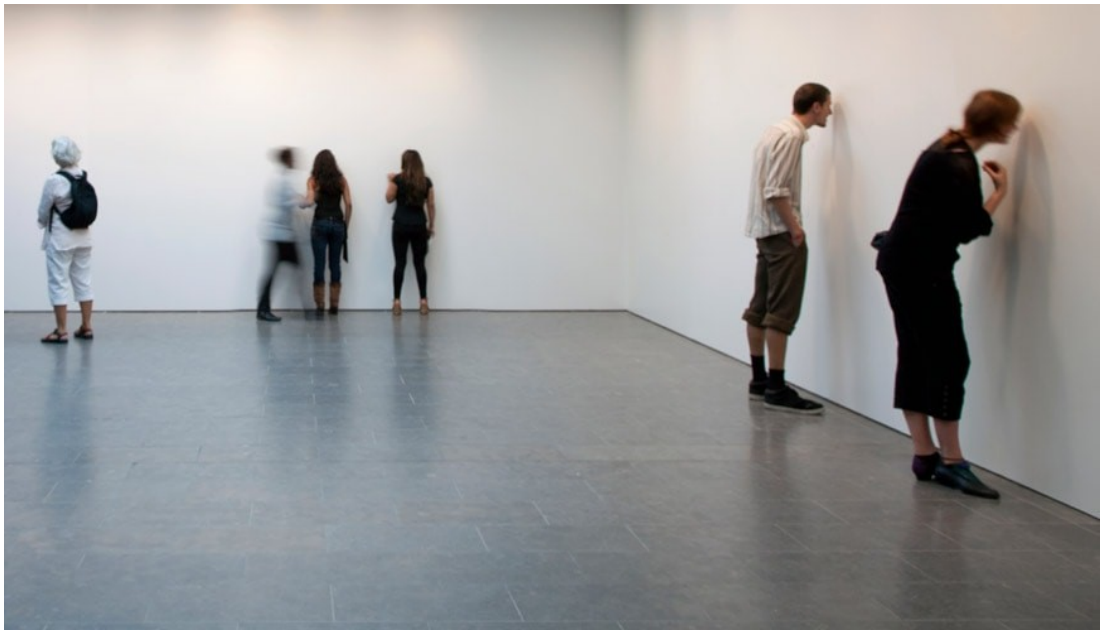
It is clear that in the system of our senses as a whole, in our sensorium, the capacity for understanding the world is an intrinsic characteristic; the phenomenon of ocularcentrism is only a result of our society.

Mathieu Briand, *Ubiq, a Mental Odissey*



Mathieu Briand, *SYS*017. ReR*06/PiG~EqN/5*8*

Sissel Tolaas, *Fear I*



Sissel Tolaas, *Fear I*

CHAPTER II

2. HOW TO REALLY SEE A BLIND PERSON

To contextualize my case of study, I thought that it was essential to proceed with ~~a~~ research that could make a sighted person understand what it means to be a visual impaired and a blind person within our society.

Here follows the story of Brad Snyder a retired Nay, taken from "*Disability"* a weekly series of essays of the New York Times journal. Brad tells his personal story after becoming blind and how life could be a continuous encounter of obstacles and passive inclusivity even during basic daily life activities. But not everything is dark, the story is an evidence of how inclusivity can be reached easily even through simple thing, and how could be beneficial for all, with or without sight disability.

"I tell my story a lot. I tell the story of how I wasn't always blind. I tell the story of how I lost my vision while serving in Afghanistan, by stepping on an I.E.D. I tell the story of how I put my own injury into perspective by considering the greater sacrifice of my fallen comrades, and how I owed it to them to make the most of my escape from death.

I tell the story of how I did that by winning a gold medal in swimming at the Paralympics on the first anniversary of the loss of my vision. And after I tell it, people often thank me. They tell me that it's an incredible story, and that I'm a good storyteller. They tell me how inspiring it is to see how I've overcome my blindness.

But that's not my whole story.

It's part of it, I suppose — in many ways, I have overcome my blindness. Five years after losing my sight, I have a rewarding job teaching leadership at the Naval Academy, a lovely house on a creek in historic Annapolis, Md., a loving family and a number of truly deep friendships. My quality of life is very high. Day to day, week to week, I don't find that my blindness is an obstacle.

What I haven't been able to overcome is how others perceive me and treat me differently now because of my blindness, or how I so often feel as if I'm on the outside listening in on the lives of others.

I hear people talk about how beautiful the sunrise is, but I no longer see it. I hear them talk about "Game of Thrones," but cannot watch it because HBO doesn't have descriptive audio for its shows. I can no longer share these very common experiences.

One thing I do often now is public talks about learning to navigate my new life without vision. But it's a one-way conversation. Afterward, I go to the airport where I'm reminded how hard it is to physically navigate a world not set up for people without vision. It's a pain to find assistance at the counter. It's a pain to get through security, which can't seem to distinguish dog food from explosives. It's a pain to get the airlines to move my seat to the bulkhead so there's room for my guide dog. Don't get me started on what a pain it is to find the bathroom for either of us.

I feel the looks of my fellow passengers, wondering what my story is, but too afraid to ask for fear of saying the wrong thing and offending me. I feel helpless, stared at like some sort of freak.

In my former life as an explosive ordnance disposal officer, I traveled through airports all over the world, from Baltimore to Prague to Baghdad to Kandahar and back, quickly, easily and anonymously. But traveling as I do now, with a cane and a guide dog, is anything but anonymous. At times, it has beaten me down.

At home, the inability to join my friends in their chatter about "Game of Thrones" or memes on Instagram has caused me to pull back. I decline invitations out to avoid the same alienating experience I've had a thousand times before. Whether I'm at a crowded bar, restaurant, sports event or concert, I'll be a spectacle, isolated by my inability to join the conversations of those around me.

No, thanks. I'll just stay home, in the quiet, where I know exactly where the bathroom is. I'll stay there until I have to hit the road again to tell my story of how I overcame blindness.

The irony used to make me chuckle.

A few years ago, after another frustrating trip through the airport, I settled into my seat bound for Dallas and did my best to disappear.

"That's an awfully nice watch you have there! I've never seen anything quite like it!" my neighbor said as she fastened her seatbelt.

A smile spread across my face. I love talking about my watch. It's a tactile timepiece that replaces traditional hour and minute hands with magnetic, rotating ball bearings so that blind folks like me can literally tell the time through touch. It's superbly designed and very sharp-looking, so it appeals to those with vision too.

The timepiece — the Bradley by Eone — is actually named after me. It is accessible to people with or without disabilities. (I am a friend of the company's founder, Hyungsoo Kim, and receive a small percentage on sales of the watch.) I love explaining how the watch embodies the principles of inclusive design, which I am passionate about.

The conversation with my neighbor went on, and I explained how I lost my vision. I talked about how I had been able to adapt, how I try to maintain perspective and how I felt as though I had overcome my blindness.

Then my neighbor shared her own fights. She had lost her husband a few years ago, and during her grief had gained weight. She had been struggling with her weight ever since, and it had begun to interfere with her quality of life. I told her how sometimes I felt isolated by my disability, and she relayed that she felt constrained by her weight. I shared how I sometimes feel that I'm an outsider, and she echoed the same.

For the first time in a while, I didn't feel like a spectacle or an outcast. I felt like a friend, and an important part of someone else's journey. I felt valued, needed and involved, and all it took was a conversation. I realized that I'm not alone in being alone.

Sometimes people ask me what I want others to know about being blind. I want others to feel more comfortable having conversations with people whose experiences are different from their own. My watch has been a natural opener, and once that conversation starts, we usually discuss topics far beyond timepieces and disabilities. Through talking, we find humanity.

It seems like we could all use a little more humanity right now. I know it's tough for many to have conversations with people so different from themselves, to risk feeling uncomfortable or giving offense, to find common ground, to listen to another's struggles, to share your own struggles in return. But you might be surprised what you get out of it — and what you realize you've given in return." [28]

In accordance with the Prevent Blindness America statistics,[29] as elderly populations in developing nations grows exponentially, cases of aged vision loss as a result of macular degeneration, diabetic retinopathy, glaucoma and cataract are also growing dramatically.[30]

The World Health Organization (WHO) estimates that there are forty-five million people worldwide who are blind, and three time this number who are visually impaired.[31]

Data show that one out of six adults of forty-five years ages and older self-report vision that is not sufficient to read a book or to see a person face across a room, even when glasses are worn.[32]

However exact data is difficult to obtain.

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[28] https://www.nytimes.com/2018/02/28/opinion/blind-sight-seeing.html

[29] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T. *Art Beyond Sight. A resource Guide to Art, creativity, and visual impairment*. American Foundation for the Blind, New York, 2002, p 50.

[30] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T. *Art Beyond Sight. A resource Guide to Art, creativity, and visual impairment*. American Foundation for the Blind, New York, 2002, p 50.

[31] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T. *Art Beyond Sight. A resource Guide to Art, creativity, and visual impairment*. American Foundation for the Blind, New York, 2002, p 50.

[32] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T. *Art Beyond Sight. A resource Guide to Art, creativity, and visual impairment*. American Foundation for the Blind, New York, 2002, p 50.

WHO estimate 1.5 million children are blind worldwide because of cortical visual impairment, retinopathy of prematurity, optic nerve hypoplasia, corneal opacification.

In general, it needs to be kept in mind that not all visual impairments are the same; functional effects of visual impaired are different and they depend on which part of the eye or visual system have been affected.

Vision loss can be classified in three categories:

People with minor sight impairment:

People affected by minor sight impairment could find some difficulties in what is not designed in accordance with legibility criteria.

The sensorial channel that is predominately used by this category is sight but needing the help of auxiliary tools such as glasses and lenses.

Visually impaired people with a limited visual ability:

Problems and difficulties for this type of visual impairment pends on their own pathology.

Problems can be founded also in normal daily life activity, for example moving within a new and unknown space.

The visually impaired are usually independent people that could use the stick designed for blind people as an auxiliary tool.

The sensorial channel that they use is actually the sight, even if touch and hearing can be used as support.

People affected by this kind of impairment are usually sensitive to perceiving light, contrasts and colors.

There are specific auxiliary tools for this type of disability such as magnifying lenses, tuned voice system and video-magnifying lenses.

Blind people:

In this case, there is an effective and real lack of sight exist, difficulties affect every aspect of life. Usually they need to use the stick as auxiliary tool, and they have a guide dog that helps them navigate the space.

The sensorial channel that is most used is touch but also hearing.

This category of visual impairment does not have the capability to perceive light, contrast and shadows.

There are specific auxiliary tools, often combined with technologies like screen readers or braille display.

Within this category it is possible to discern another distinct sub-category: those who were born blind and those who became blind.

2.1 HOW THE WORLD LOOKS LIKE TO A PERSON WITH LOW VISION

Not all visual impairments are the same, in the following paragraph are listed some of the most common sight diseases.

Normal Vision:

A person with normal vision or vision corrected 10/10 (or 20/20) sees this scene.

Cataract:

An opacity of the lens results in diminished acuity such sharpness of details, but does not affect the person's life field of vision.

There is no scotoma, a distorted, empty or dark area, but the person's vision is hazy overall, particularly in glaring light.

This pathology can be corrected with a simple chirurgical operation that consist in substitution of the damage crystalline lens with an artificial one. [33]

[33] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T. *Art Beyond Sight. A resource Guide to Art, creativity, and visual impairment*. American Foundation for the Blind, New York, 2002, p 58.

Macular degeneration:

The deterioration of the macula, the central area of the retina, is the most prevalent eye disease in older adults.

The picture shows the area of decreased central vision, called central scotoma.

The peripheral or side vision remains unaffected, so mobility is compromised.

With macular degeneration prints appears distorted and segments of word may be missing.

The vision of colors is less clear, and it requires more light to see.[34]

[34] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T. *Art Beyond Sight. A resource Guide to Art, creativity, and visual impairment*. American Foundation for the Blind, New York, 2002, p 59.

Diabetic Retinopathy

The leaking of retinal blood vessels may occur in advanced or long-term diabetes and affects the macula ort, the entire retina and vitreous.

Not all people with diabetes develop retinal changes, but possibility of retinopathy and cataracts develops; over the progression of diabetes in the person, as the consistency and levels of blood glucose control is affected.

With diabetic retinopathy the remaining vision is variable, and print may be distorted or blurred. If cataracts are also present, print is hazy as well as distorted[35]

Macular degeneration and diabetic retinopathy have some aspects in common; the parts of the eye affected are almost the same, such as fovea, macula and retina.

For these two specific pathologies some preventive measures need to be taken, for example Enlarging print, increasing light and use of magnifying devises.

Glaucoma:

Chronic elevated eye pressure in susceptible individuals may cause optic nerve atrophy and loss of peripheral vision.

[35] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T. *Art Beyond Sight. A resource Guide to Art, creativity, and visual impairment*. American Foundation for the Blind, New York, 2002, p 59.

Early detection, close medical monitoring and, in some cases, surgery can help reduce complications.

With glaucoma, print may appear faded and words may be difficult to read. [36]

[36] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T. *Art Beyond Sight. A resource Guide to Art, creativity, and visual impairment*. American Foundation for the Blind, New York, 2002, p 60.

CHAPTER III

3. CURRENT DEVELOPMENTS IN INCLUSIVITY FOR THE VISUALLY IMPAIRED IN MUSEUMS AND ART GALLERIES

"Access is not just elevators and Braille beneath the buttons on elevator panels or Braille on bathroom doors; access is not curb cuts, ramps, or wheelchair-accommodating toilet stall with sturdy rails around the toilets.
Access means that there is an equal opportunity for the disabled to enjoy any public presentation" [37]

Nowadays museum's interest in inclusion for people who are blind (in order to overcome the obstacle of *ocularcentrism*) have increased, especially over the last century, and it has expanded further in the early decades of the twenty-first century.

There are many solutions that museums and art galleries are adopting in order to make collections accessible for people affected by sight disability.

These solutions are appearing through curatorial practice, organization of the space, interactive workshop and auxiliary tools to facilitate the reading of an artwork (audio guides, tactile diagrams

Several reasons account for this interest.

Firstly, it is important to keep in mind that the knowledge of art in blind and visually impaired people strengthens the imaginative process and helps the comprehension of the world structure, graphic and plastic representation. [38]

Moreover, the knowledge of the aesthetic value predisposes a way of interpretation based on sensorial knowledge of the image that allows to share a new linguistic and semantic codes that

[37] Davis 2008 pp.21. Quoted by Hayhoe 2017 pp. 49.
[38] Secchi 2005 pp. 63.

enrich the communication and integration between sighted, visual impaired and blind audiences.[39]

A good approach to furthering encounters with art from our senses to our mind and reveals itself as effective when sighted visitors also discover that experience of art without seeing it. This approach can make the comprehension of the artwork even stronger.

Adding touch, sense of listen and smell to sight can help all types of audience to understand an artwork in a more complete way. [40]

[39] Secchi 2005 pp. 63.
[40] Secchi 2005 pp. 65.

3.1 TOOLS FOR SENSORIAL INCLUSIVITY

Tactile diagrams

"We have learned much through our hands, through our tactile comprehensions, and proprioceptive deep muscle sensitivities.

We truly comprehend the meaning of hundreds upon hundreds of word concepts only because we have literally felt the hot stove, the cold ice, the sharp edge of a knife.

We recognize the true meaning of smooth, soft and rough, only because our hands have conveyed to our mind the realization of these and other oral expressions."[41]

Tactile diagrams are maps used in conjunction with detailed verbal narratives**.**

Tactile diagrams are not exact relief reproductions of visual images.

Rather they are translation of visual image into a tactile language.

Those tools are usually used together with verbal narratives that guide the users through diagram in a logical exploration.

The reading of a tactile diagram needs to be progressive and well organized, the best way to proceed consist of providing a guided exploration that gradually becomes autonomous.

Before starting with the exploration it is necessary to know how much of the knowledge about the subject represented in the tactile diagram is developed in the audience that we are about to guide; this is undertaken in order to organize the reading in the way that is more suitable for a visual impaired or blind visitor.

The exploration of a tactile diagram is usually developed in three different phases: perception, recognition and meaning of the image. [42]

[41] McNeice & Benson 1964. pp 46. Quoted by Hayhoe.
[42] Secchi 2005 pp. 72.

Every step corresponds to a different reading level, those levels are always linked each other and inseparable.

The blind or visually impaired visitor, after becoming familiar with the composition and the general sense of the artwork, goes through the aesthetic experience.

The following scheme shows how a blind or visually impaired visitor could get in touch with an artwork:

1) Tactile perception of general shapes and structure (this step is called pre-iconographic reading)
2) Recognition of geometrical shapes and recognition of their identity
3) Comprehension of the subject and extension of its sense (this step is called iconographic interpretation) [43]

As previously acknowledged, frequently during a tactile exploration the usage of vocal directions have been implemented to explain how to use the diagram and so encounter the artwork.

During the exploration, it is possible to use two different ways to conduct the discovery of the art craft.

First of all, the exploration can be conducted through a permanent contact between the hands of those who guide and reader's hands.

This way of proceeding is frequently used with those who develop or complete tactile education.

The second approach occurs while keeping a distance with the visitor, with some minimal intervention.-This can help the audience to understand the right directions and consequently the arms movements that need to be used to conduct the exploration in the best possible way.

This type of exploration can be also autonomous but integrated with audio guides and informative texts and leaflets.

The right way to proceed consists of starting with touching the outlines and profiles of what is represented in the diagram, then, gradually, moving the hands to become familiar with objects, components and space that make up the scene.

[43] Secchi 2005 pp. 72.

What is important to underline is that it is always preferable not to submit a tactile diagram with a broad amount of textures and materials; a diagram with a lot of information result in a confused superimposition of information that, at the end of the experience will not be clear for blind and visually impaired audience.

Tactile exploration guided by Loretta Secchi, Museum Anteros, Bologna, Italy.

Audio-guide and verbal description

Verbal description is a way of using a non-visual language to convey the visual world.
It can navigate a visitor through museums or art galleries, orient users to a work of art, as well as provide historical and cultural context for exhibitions. [44]
This kind of descriptions are a good instrument to help a blind or visually impaired visitors to create a mental image of what they cannot see, or cannot clearly see.
Audio descriptions have been adopted on several occasions, to make visual information accessible in films, television and more recently in museums.
In museums and art galleries verbal descriptions can be provided in more than one format: a museum's guide, or a mediator who can respond to particular questions asked by audience members. They can also engage museum visitor in starting conversations, sharing their interest in a subject that helps with the description about, and appreciation of, the artworks for the visitor.
Without involving a physical person in the process, information can also be translated into the form of audio guides; this method can also help museum to create an archive of narratives about some specific work of art.
(It is important to remember that a visual impaired or blind visitor is able to experience only a part of a collection as long as the effort to engage with a work of art is substantial and can involve an extreme level of concentration).

[44] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T 2002 pp. 218.

How to provide a complete, stimulating and vivid audio description?[45]

An effective verbal description is usually divided into several steps.

First of all, it is necessary to give standard information about the artwork, the same information that any other visitor can read on a regular museum label: artist, nationality, title, date, mediums and material but most importantly, the size. Having the same information in braille also could be an effective addition to the verbal description.

Even if data is not descriptive, it can place the art craft in an historical context and establish a solid base for the information that will follow later on in the audio description.

Secondly, the object-label information is followed by an overview of the subject and composition of the artwork.

Usually an exhaustive description includes visual information in sequence, allowing the blind visitor to reconstruct the art piece step by step.

It is also important to give information about the location of the objects, subjects and figures in the artwork, for example in a painting that involves more than one character.

One of the most efficient system is to refer of the movement of the needles of a clock.[46]

The following step will consist of talking about the medium and the material that the artist used to create the work.

Providing this type of information can enable a blind or visually impaired visitor to understand the way in which meaning, subject and style are generated from the material.

However, this step could become very technical, it would be better, in order not to the audience too much, to ask them how much they are interested in the topic.

[45] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T 2002 pp. 218.
[46] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T 2002 pp. 218.

If a model of the material can be provided to be touched this could be ideal for a fuller understanding.

Here is a good time to go deeper in the style of the work, the details that identify an artwork as being by a specific artist, school, movement, period.

Style is a commutative result of many elements; after the basic information about subject, composition, and materials are arranged together the verbal or audio description can focus on how all those elements contribute to the whole.

Now that the general idea of the work is conveyed, the description can become more vivid and precise; this is a good opportunity to describe the details in a deeper way and move between different parts of the work.

The last step concerns the location; it is now possible to indicate where the curator has installed the work; the installation site of an artwork can reveal important data about the meaning of the craft.

This juncture could also be the occasion to talk about the museum, institution or gallery and the context in which the art piece is located, mentioning also the surrounding artworks.

Throughout the duration of the vocal or audio description it is important to take in consideration some general rules.

First of all, the use of specific words, clear and specific language is crucial to any good description.

With a blind or visually impaired audience it is essential to avoid ambiguous and figurative language; the audience could take the word very literally.

It is crucial not to make assumptions about the visitor's knowledge of any aspect of art making.[47]

However, it is possible to try to reinstate abstract concepts through analogues using experiences or object from everyday life; this can be a risky step.

[47] Axel E.S. - Hooper V. - Kardoulias T. - Keyes S. - Rosenberg F. - Sorensen K.T 2002 pp. 218.

It might be safer instead to possibly include the other senses with the audio experience to include in the audio experience the other senses to enable them to construct a detailed impression, even if based on analogies, of a visual artwork.

This process involves a physical engagement with the artwork; it is through the sense of touch that the real shape and essence of the artwork reveals itself.

Only with the sense of touch is it possible to perceive the solidity, fluidity or the smoothness of an object, and this process bring the user closer to the truth, to the base of thing.

The act of touching has the effect of a holistic sense of the body that is brought closer to the artwork until a total fusion occurs. Only through touch is it possible to know the more intimate essence for art

3.2 NEW TECHNOLOGIES: 3D PRINTING AND VIRTUAL REALITY

The advancements of digital technology have further increased the viability of tactile exhibitions. In an analog world, museums could only print their information on flat, two-dimensional surfaces that neither helped people with low vision nor promoted active engagement. Text can be boring regardless of visual ability.

Modern three-dimensional printing allows museums and art galleries to print accurate replicas or scaled versions of their rare artifacts.

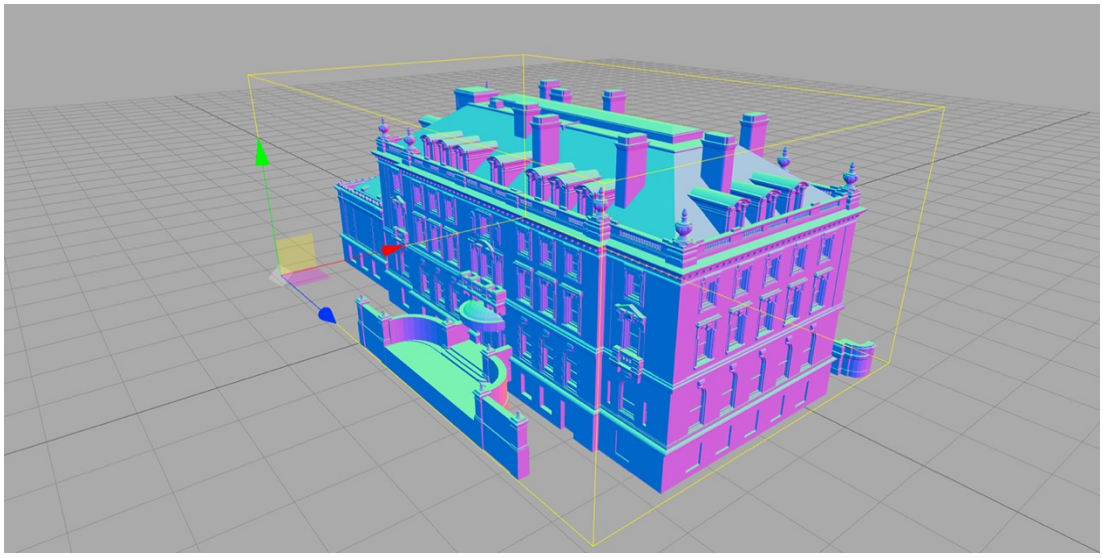
Museums and curators can use the technology to produce easily duplicated models that people can touch.

This allows visitors to interact with an exhibition's objects while ensuring the safety of the original pieces.[48]

Museums can appeal to wider audiences while also preserving their collections.

[48] https://americanhistory.si.edu/blog/please-touch-objects-tactile-models-and-alternative-approaches-curation

A good example is the Smithsonian museum that has already started to use three-dimensional printing to interpret the Cooper Hewitt Mansion, one of the buildings which is part of the Smithsonian complex.



[49]

The Smithsonian was not the only institute to employ 3D printing machines. Museums such as Abu Dhabi Louvre collaborated with Tactile Studio, a group of experts and organizations (that now includes a design agency in Paris with offices in Berlin, London and Montreal) in order to make their collection more inclusive and accessible for all the visitor trends.

The Louvre Abu Dhabi has entrusted Tactile Studio's expertise with the entire accessibility project for some of the major works of art in the new museum.

The main issue that the project had to address, was the dual aspect of accessibility: accessibility for blind and visually impaired people, as well as cultural accessibility.[50]

"We worked collaboratively with teams from the Louvre Abu Dhabi to find how better to convey the knowledge and offer a story accessible to all, beyond geography and cultures." Tactile Studio equip report.[51]

[49] https://www.cooperhewitt.org/open-source-at-cooper-hewitt/mansionmodel/
[50] https://tactilestudio.co/en/achievements/realisation-louvre-abudhabi/
[51] https://tactilestudio.co/en/achievements/realisation-louvre-abudhabi/

As a result, Tactile Studio succeeded in finding an elegant solution for the exhibition panels, which were as inclusive as possible, with several languages (Arabic, French, English) and writing systems (Braille, Arabic Braille).

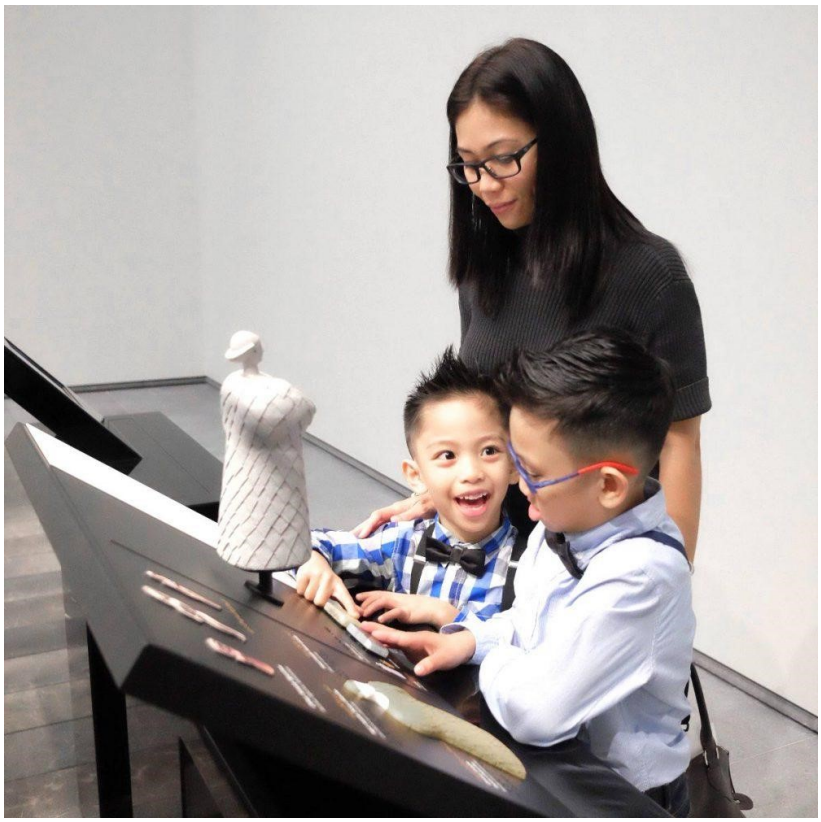
[52]

At each tactile station there is a short and easy-to-understand introduction to the topic and its historical and cultural context. Then, visitors can explore a tactile transcription of the object or artwork, in other words a tangible object on which we have stylized details which make sense when “read” with the fingers.

Finally, on the left-hand side, several details are picked out and explored in greater depth. An adapted audio-guide complements the sensory experience.

Tactile Studio employed ultra-high-definition 3D prints, direct tone prints and ultra-matt finishes.

[52] https://tactilestudio.co/en/achievements/realisation-louvre-abudhabi/



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[53] https://tactilestudio.co/en/achievements/realisation-louvre-abudhabi/
[54] https://tactilestudio.co/en/achievements/realisation-louvre-abudhabi/

The power of computer, computational machines and algorithms can also be applied to work with virtual reality, as is already happening at the National Gallery of Prague. A number of famous artworks were selected and scanned with laser scans to create highly detailed 3D models that are one-to-one copies of their original counterparts. High levels of detail have also been possible thanks to developing unique UV unwraps of the models, along with adjustments to the topology and addition necessary extra levels of texture to create a realistic tactile experience.[55] The work on display in the exhibit include Michelangelo's David, the Venus de Milo or the bust of Nefertiti.

Each piece is explorable wearing a pair of haptic gloves. Moving around the virtual space they respond according to the impact of the artwork.

In this way, the exploration of the work of art can be enjoyed by all; by the visually impaired and by normal sighted visitors, receiving a complex experience as a result.

[55] https://www.vrfocus.com/2018/03/touching-masterpieces-lets-the-visually-impaired-touch-famous-artwork/

3.3 INCLUSIVE MUSEUM ACTIVITIES: PUT THE SIGHT ASIDE, MULTISENSORIAL WORKSHOP FOR A BROAD AUDIENCE

EMMAxAalto

Alice Orlandi,

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25.04.2019

Starting from the idea of a culture that is produced *by many for many*, working together with some colleagues we designed a workshop that had as its main characteristic, inclusivity and openness.

The idea came about after an accurate research data into accessibility and communication methods in museum of modern art of the city of Espoo.

The project is a collaboration between Kaija Kaitavuori's course Contemporary Art and its Social Context course students Gaia Mazzola, Alice Orlandi, Petronella Grönroos, Lotfi El Salah, Zahrah Ehsan and EMMA museum.

The presented workshop works as a draft for a possible development of the content in a real guided workshop in EMMA.

Details:

The guided workshop pilot took place on 25.04.2019 in EMMA's premises. Duration: 30 minutes.

Background:

The experience is based on research and a meeting with Cultural Service for the Visually Impaired association chairman Eija-Liisa Markkula. During the dialogue we investigated how a visually impaired person perceives visual art, how they approach visual art contexts such as museums and galleries and what he/she would expect from a guided tour in such premises.

Content:

Based on a merging between a more classical workshop and a guided tour for visually impaired audiences, the workshop makes the participants "put the sight aside" while exploring some of the artworks in the museum's exhibitions.

The idea is to stimulate a different kind of experience within the visual art realm, related to tactile and auditory sensations rather than sight-based.

The participants are given materials related to three chosen artworks to investigate which will not be visible at first. Each set of materials is supported by an oral description of the artwork itself, in order to evoke the feeling of the artwork without focusing on its visuals.

In the end the participants get the possibility to meet the artworks in the collection and create a discussion about the experience.

The chosen artworks for the guided workshop pilot were:

-*Prassel*, Emma Rönnholm, 2015. Kinetic sculpture, buttons, motor.

-*Eyeliner*, HannaSaarikoski,2013. Silent video screen HD video (00:21:41).

-*Mäntyjä*, Sarah Morris, 2017. 30-meters mural, acrylics.

Following the scripts (oral description) developed by us for the pilot.

Prassel:

Buttons: exploring tactility, embodiment and sound:

How do the buttons feel in your hands? What are the materials like? Feel them and examine for different sizes, different materials, different thickness. What parts of its form is used for function, what is for decoration?

Run the button between your fingers. Think about its weight, drop it from one hand to another. Imagine you're buttoning a shirt or a coat. Is there a button on what you are wearing today? Do you know how to sew a loose button? Think about how those materials (needle and thread) would feel in your hands.

Run the button against the table. What does it sound like? Let it bounce from your fingers to the table. What does it sound like? Put the button back into the container and move the buttons together. What does it sound like?

Nails: exploring tactility, embodiment and sound.

How do the nails feel in your fingers? How does the material feel, is it cold? Can you warm it in your hands? Feel for different sizes, lengths and types of nails. Think about the sharpness. Think about the functionality of the nail, what would you use this nail for?

Roll and turn the nail between your fingers. Think about its weight, drop it from one hand to another. Imagine you're choosing a nail for a purpose. When was the last time you hammered a nail? Think about a memory connected to hammering, building, repairing

Run the nail very softly against the table. What does it sound like? Let it bounce from your fingers to the table. What does it sound like? Pick some more nails from the container and drop them on the table. What do they sound like?

To end the exercise, think about the round shape of the artwork. Think about the movement of rotation. What does it make you think of? What other things move in a circular way? What concepts do you think about when you think of rotation?

Eyeliner:

Now I will describe in more detail what the artist does throughout the video in relation to the camera or viewer. To experience the artwork yourself, feel free to take on the role of the artist by reenacting what she does according to the description. I will be describing the video rather accurately, but you could decide to do something slightly or significantly different at any point. I will play the role of the camera or viewer. Instead of an eyeliner, you can use the tip of your finger.

The video begins with the artist looking straight at the camera. Her face and shoulders appear against a plain white background. She raises her right hand, which is carrying an eyeliner pen, and slowly traces a line around the outline of her right ear, from top to bottom.

She then traces another line on the right side of her face, which starts from a point next to the top of her right ear, goes down and traces the right jawline, and finally stops at the bottom of her chin. The artist then lowers her hand and turns her head slightly towards the right, as if hiding the two lines she just drew from the camera. At times the artist draws the lines with one continuous stroke, and at other times in multiple connected strokes.

The artist raises her hand again and traces another line. The line starts from a point slightly above the right ear. It goes down and runs again through the outline of the ear (next to the previous line), down along the jawline, and stops at the bottom of the chin, shortly before the end of the previous line. The artist then draws another line starting from the top of the right side of her neck down to the edge of her shirt collar.

The artist again turns her head slightly to the right.

The artist repeats the process again, drawing several lines on her right side, with each line tracing a contour of her face. She turns back to face the camera around minute 11, roughly halfway through the video. She starts a similar process again on the left side of her face. With her right hand, she draws a line that starts from the top of the left side of her forehead, runs along her hairline, traces the outline of her left ear, then the jawline, up until the bottom of the chin, where the line connects with the other lines she had drawn earlier. The artist then traces another line along the left side of her neck. After that, the artist turns her head slightly to the left and draws a new outline next to the previous one, which is now partially hidden. She repeats the process several times again on this side.

Towards the end of the video, the artist's head is turned sideways to her left. She draws the final line, which runs across the middle of her face, from the top of her forehead to the bottom of her neck. The artist then turns to face the camera and the video ends.

Did any thoughts or images come to your mind while listening/performing? Did you get a mental image of the video or did you perceive it some other way? If you have *seen the artwork, how did listening/performing compare to that?*

Mäntyjä

The wall is painted in eleven colors. There are various abstract geometric shaped forms painted in 10 various colors with the color white painted in spaces between these shapes.

If white is taken as the background, then the other 9 colors are: black, light blue, dark blue, yellow, orange, skin/nude/flesh tint, gray, pink, light emerald green, dark green.

Each color, in the model from a snippet of Sarah Morris's work, will be recreated by differentiating and associating each color with a specific texture. The model is accompanied by an oral description and demonstration, explaining and guiding the participant into a non-visual~~ly~~ reading of each color used by the artist.

While there would definitely be a set vocabulary of colors learnt by the visually impaired, there are more ways of identifying the colors as well, especially for those who may have not ever met the concept of colors - for instance people who lost their sight at an early age or at birth.
The model presented at the workshop consisted of 8 colors: green, dark blue, light blue, pink, emerald green, gray, black, yellow, orange.
These colors on the board model are differentiating by using coffee, tea, soft board, patterns created by an Xacto knife and electrical adhesive tape. Thickness is also a feature that determines either colors or elements of the mural.

Conclusions concerning the workshop experiments:

Positive aspects:

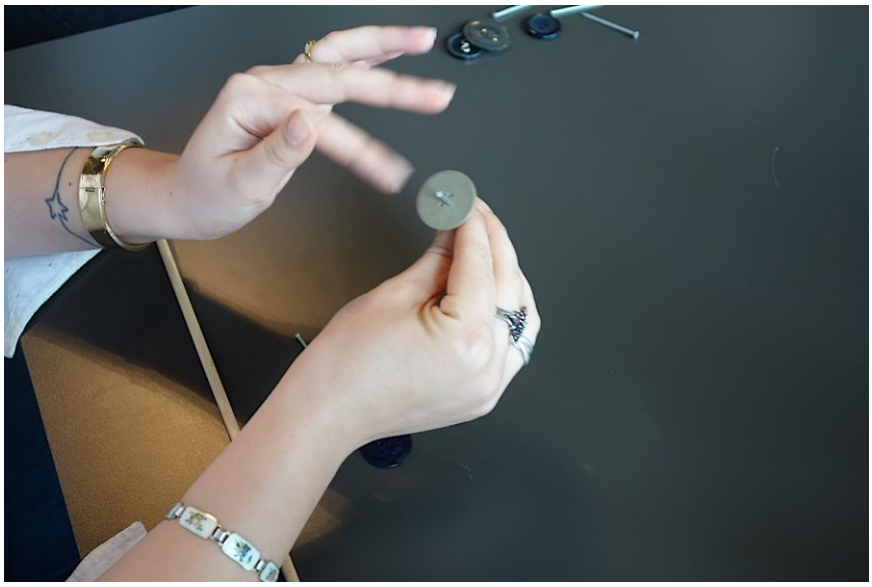
Once we visited the artworks after having experienced them in the workshop, the participants agreed that meeting an artwork without seeing it was an interesting starting point for reflection.
Museum visitors are often ‘in a hurry’ and
therefore, this specific guided workshop could help them to ‘consume’ less content but in a deeper way. The idea of embodiment brought up by this workshop not only facilitates the visually impaired audiences into living the museum-experience, it also enriches regular audiences’ feelings about what they are observing and is also suitable for all year target audience.
Moreover, the workshop doesn’t suggest a fixed way of interpreting the artwork, but rather it brings up questions about the essence of the artwork itself, which can then be discussed and explained while visiting it afterwards.

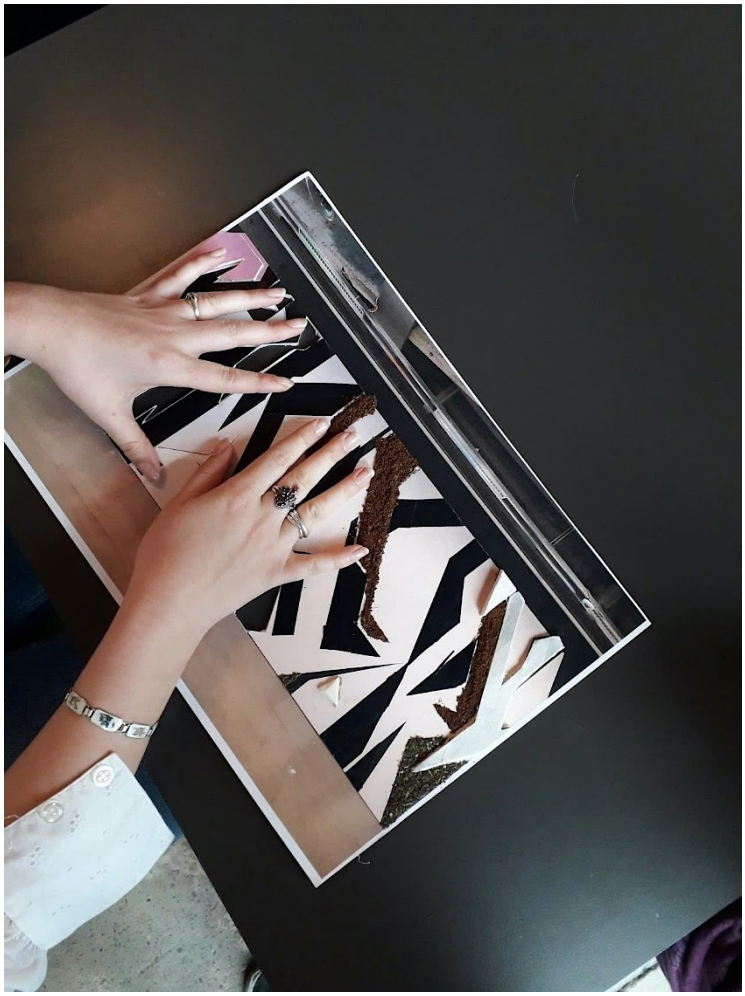
Negative aspects:

There are also some negative aspects of our activity that should be kept in mind for a future development of the project.

First of all, concerning the exploration of the last artwork, Mäntyjä; we came upon some difficulties in the exploration of colors and the association with textures; not all blind people have a clear and defined concept of colors, so this kind of activity is an end in itself.

The workshop could be useful instead, for the visual impaired that have already experience colors or that have residual sight, or at least a blind person that became blind during their lifetime and was not born with disability.





CONCLUSION

My first encounter with the topic of my research, differently from what is reported in the structure of my thesis, happened during the workshop “Put the sight aside” done in EMMA museum in 2019.

The research question came up in my mind exactly from there.

I asked to myself “How to create an inclusive curatorial project for blind and visually impaired people in museum and art galleries?”

The first step was done on the field, in Milano, at the institute of blind people, where I started to get properly in touch with the topic, also thank to the experts that I had the chance to interview.

After some month of research, I realized how this first question was partial and incomplete; the world of art’s accessibility is such a wide one, that has been difficult to focus only on the curatorial field.

I opened up the range of the research and, doing that, it brought me to what is possible to read in my papers.

I found crucial for my research to combine theoretical and in situ visits, in order to have an outcome as much complete as possible.

I thought that was likewise fundamental to take under examination the frame of the main topic, the society in which we live daily and how much it is focused on visuality; this is the main reason why the phenomenon of ocularcentrism function as overture for my thesis. I added, immediately after the description of this phenomenon, paragraphs that provide an historical, philosophical and artistic background to demonstrate how much the supremacy of visuality is imbedded in our society.

The following step, and probably the most crucial one, was trying to be in the shoes of the people I was trying to work for, understanding how the world looks like to a blind or visually impaired

person, pushed also by a personal experience of my mother being a visually impaired; therefore I have decided to report the main widespread sight disease.

The third and last step consisted in investigate which inclusive tools are nowadays present in museum and art galleries, and how they work; in which way the exploration of tactile diagram or a guided tour should be contacted in order to result accessible for blind and visually impaired audience.

After months of research around the topic of art accessibility I realized how much we are frizzed in the belief that the visual exploration is the most effective way to get to know art.

The aim of my research was, throughout historical, philosophical, artistic examples, to show how much potential is embedded in alternative methods that involves the cooperation of the all sense, to obtain an alternative knowledge that reaches inclusivity. A type of inclusivity that is not only thought for visitors with sight disease but for a broad audience, for all.

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